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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,419	02/22/2002	Michael Stephen Bell	ERLG.P-021	8270

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EXAMINER
EDWARDS, ANTHONY Q

ART UNIT	PAPER NUMBER
2835	

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/080,419	BELL ET AL.	
	Examiner	Art Unit	
	Anthony Q. Edwards	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Preliminary Amendment filed May 13, 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☒ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *See Continuation Sheet* .

Continuation of Attachment(s) 6). Other: marked up copy of Fig. 4 of U.S. Pat. No. 6,282,087.

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "124" has been used to designate both the "rail" in FIG. 2 and the "bottom rail" in FIG. 4. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 5-7, 10 and 11 are objected to because of the following informalities: each claim recites the limitation(s) "barriers disposed at at least third and forth locations along the first direction, the third location closer to the first connector than the second location" in the preamble of the method claims. There is insufficient antecedent basis for this limitation in the claim. It is noted that "a plurality of first electrical connectors" is recited after "the first connector." Likewise, the examiner contents that "the second location" should read "the forth location." Appropriate correction is required.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,282,087 to Gibbons et al. Referring to claim 1, Gibbons et al. disclose a computer

system, comprising an enclosure shaped (200) with a plurality of opposed pairs of first and second guides (216), the first guides all substantially coplanar within a first plane, the second guides all substantially coplanar within a second plane, each pair of guides defining a respective plane (204), the respective planes of the pairs of guides all parallel to each other, each pair of guides separated by a respective spacing, each pair of guides shaped to receive a respective planar carrier (206) by insertion in a first direction (see "z" direction of marked up FIG. 4) along the pair of guides. Gibbons et al. also disclose the enclosure shaped to receive a key plate (208) parallel to the first plane and intersecting the first guides, said key plate having a plurality of feature areas, each feature area corresponding to a respective plane of one of the pairs of guides, each feature area presenting a predetermined pattern of barriers to movement in the first direction, the barriers disposed at at least two locations (i.e., the front, middle, and back of each feature area) along the first direction. See marked up copy of FIG. 4. Likewise, Gibbons et al. disclose the enclosure further comprising a plurality of electrical connectors corresponding to respective pairs of first and second guides, each connector disposed between ends of its respective first and second guides and positioned perpendicular thereto. See column 4, lines 57-61.

Referring to claim 2, Gibbons et al. disclose a computer system, wherein the key plate (208) is substantially linear and is substantially perpendicular to the first direction. See marked up copy of FIG. 4.

Referring to claim 8, the marked up copy of FIG. 4 of Gibbons et al. shows a key plate (208) comprising a substantially linear member elongated in a first direction (i.e., "x" direction), the key plate having a plurality of feature areas disposed at equally spaced distances along the

first direction, each feature area presenting a predetermined pattern of barriers to movement in a second direction (i.e., "z" direction) perpendicular to the first direction, the barriers disposed at at least first and second locations along the second direction (i.e., the front, middle, and back of each feature area), and the pattern of barriers being identical in each of the feature areas.

Referring to claim 9, FIG. 2 of Gibbons et al. shows a key plate wherein the number of feature areas (i.e., bays 204) is at least ten.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-5, 7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbons et al. in view of U.S. Patent No. 6,122,173 to Felcman et al. Referring to claim 3, Gibbons et al. disclose a system further comprising a plurality of substantially planar rectangular carriers (206) each having a first rail (302) and a second rail (308) parallel to each other, each carrier shaped for insertion into a pair of first and second guides (216) with the first rail engaged to the first guide and the second rail engaged to the second guide (see FIG. 3 and the corresponding specification). Gibbons does not disclose the first rail of each carrier disposed with protruding pins at at least two locations along its length, and the pins disposed to pass by the predetermined pattern of barriers. Felcman et al. disclose a computer system comprising a hard disk drive (HDD) 84, having pins (90) for insertion into a housing (92). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify the carrier (206) of Gibbons et al. to include the HDD with pins, as taught by Felcman et al., wherein the pins (90) are inserted into notches (506) of the carrier (226) and provide protrusions at at least two locations along the length of the carrier, as an alternate means for attaching the HDD to the carrier.

Referring to claim 4, Gibbons et al. in view of Felcman et al. disclose a substantially planar rectangular carrier (206) carrying a disk drive (502), the carrier having first (302) and second (308) rails parallel to each other, the carrier having an electrical connector along an edge between the first and second rails, the carrier having a handle along the remaining edge (see FIG. 6 of Gibbons et al.). As indicated above, Gibbons et al. in view of Felcman et al. also disclose the first rail having protruding pins at at least first and second locations (506) along its length, with the first location closer to the electrical connector than the second location.

Referring to claims 5, 7, 10 and 11, as best understood by the examiner, Gibbons et al. disclose all of the elements recited in the preamble to the method claims. Specifically, Gibbons et al. disclose a system comprising a carrier (206) and an enclosure (200), the enclosure shaped with a plurality of opposed pairs of first and second guides (216), the first guides all substantially coplanar within a first plane, the second guides all substantially coplanar within a second plane, each pair of guides defining a respective plane (204), the respective planes of the pairs of guides all parallel to each other, each pair of guides separated by a respective spacing, each pair of guides shaped to receive a respective planar carrier (206) by insertion in a first direction ("z" direction of marked up FIG. 4) along the pair of guides, the enclosure shaped to receive a key plate (208) parallel to the first plane and intersecting the first guides, said key plate having a

plurality of feature areas, each feature area corresponding to a respective plane of one of the pairs of guides, each feature area presenting a predetermined pattern of barriers to movement in the first direction, the barriers disposed at at least third and fourth locations (e.g., the back and front of each feature area) along the first direction, wherein the third location (i.e., the back area) is closer to 'a first connector' than the 'forth location.' Gibbons et al. as disclose the substantially planar rectangular carrier (206) carrying a disk drive (502). See FIGS. 2-4 of and the corresponding specification.

Gibbons et al. also disclose the enclosure (200) further comprising a plurality of first electrical connectors corresponding to respective pairs of first and second guides, each first connector disposed between ends of its respective first and second guides and positioned perpendicular thereto (see column 5, lines 44-47). Likewise, Gibbons et al. disclose the carrier (206) having first (302) and second rails (308) parallel to each other, the carrier having a second electrical connector along an edge between the first and second rails, and a handle along the remaining edge. See FIG. 6 and the corresponding specification.

Gibbons does not disclose the first rail disposed with protruding pins at at least first and second locations along its length, the first location closer to the second electrical connector than the second. However, as indicated above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the carrier (206) of Gibbons et al. to include a HDD with pins, as taught by Felcman et al., wherein the pins (90) provide protrusions at at least two locations along the length of the carrier (i.e., at a first notch and a second notch (506)), as an alternate means for attaching the HDD to the carrier.

Regarding claim 5, Gibbons et al. in view of Felcman et al. disclose the method, comprising the steps of inserting the carrier partially into a first pair of guides, while the carrier is being inserted, striking a protruding pin (90a) at the first location (506A) against a barrier at the third location (402), the first and second electrical connectors failing to be in contact. See column 5, lines 50-69.

Regarding claim 7, Gibbons et al. in view of Felcman et al. disclose the method, comprising the steps of inserting the carrier partially into a first pair of guides, and bringing the first and second electrical connectors into contact. See column 5, lines 50-69.

Regarding claim 10, Gibbons et al. in view of Felcman et al. disclose the method, comprising the steps of inserting the carrier partially into a first pair of guides, while the carrier is being inserted, striking a protruding pin (90b) at the second location (506B) against a barrier at the forth location (i.e., the middle or front portion of 208), the first and second electrical connectors failing to be in contact. See column 5, lines 50-69.

Regarding claim 11, Gibbons et al. in view of Felcman et al. disclose the method, comprising the steps of inserting the carrier partially into a first pair of guides, while the carrier is being inserted, striking a protruding pin (90a) at the first location (506A) against a barrier at the forth location (i.e., the middle or front portion of 208), the first and second electrical connectors failing to be in contact. See column 5, lines 50-69.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,064,568 to Schmitt discloses a computer system with keying

mechanism to facilitate placement of carriers in the proper carrier guides, based on the type of device retained by the carriers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 703-605-4214. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (703) 308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-9929.

aqe
May 15, 2003

DARREN SCHUBERG
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